Blood Spots in Hens' Eggs. — Every one is familiar with the fact that flecks of blood are occasionally seen on the surface of the yellow of a perfectly fresh hen's egg. It is evident that these flecks are derived from some maternal structure and are not a product of the development of the egg, as they are present before incubation begins and are outside the embryonic area. Professor Mitrophanow,[1] upon investigating the nature of these flecks, has arrived at some interesting conclusions regarding the origin of the egg-membranes of birds.

According to the classical description of Foster and Balfour, the yellow of the egg is enclosed by a single "vitelline" membrane, the exact source of which, however, whether from the egg itself or from follicular cells surrounding it in the ovary, is unknown.

Most recent investigators assign to it a follicular origin. Mitrophanow finds that it is really a double membrane whose parts are of different origin. Its double nature is demonstrated by the occurrence of the blood clots previously referred to not, as one might expect, on the outside of the vitelline membrane, or on its inner surface, but between the two laminæ of which it is composed.

Mitrophanow states reasons for believing that the blood clot can only have been deposited on the egg after it had left the follicle. If so, the outer lamina must have been formed in the upper part of the oviduct and accordingly must represent, not an ovarian product, but an accessory envelope. The delicate inner lamina Mitrophanow regards as a true vitelline membrane formed by the egg-cell itself.

Origin of the Fauna of the Central African Lakes. — J. E. S. Moore has published[2] very interesting researches on the fresh-water fauna of the African lakes, chiefly Lake Tanganyika. He divides the fauna into two constituents: (1) types which are represented generally in the African fresh-water bodies; (2) types which are found nowhere else in fresh water, but have relations in the ocean (halolimnic organisms).

To the latter class belong the Medusæ, discovered by Boehm in 1883, numerous mollusks, both of the shore and of deeper water, and further two species of shrimps and a deep-water crab.[3]

The mollusks are allied, in many cases, not to a single marine form,

[1] *Bibliographie Anatomique*, Tome vi, Fasc. 2, pp. 69–84.

[2] *Nature*, vol. 58, 1898, p. 404.

[3] These Crustaceans may prove to belong to the first class (generally distributed fresh-water animals), since such forms, belonging to the shrimp genus Caridina and the crab family Potamonidæ, are found all over the African continent. — *Rev.*

but to several; and it seems as if they represent connecting links between these forms like ancestral types. There seem to exist, in the Tanganyika, numerous unknown species, chiefly in greater depths, but the author had no facilities to make a collection of the fauna of these depths.

The halolimnic fauna of the Tanganyika, as a whole, has a striking Jurassic character. This fauna is positively wanting in the Lakes Nyassa, Meru, and Bangweolo, and — according to Gregory's collections — in the Lakes Naiwasha, Elineteita, Baringo, and — according to Donaldson Smith's and Cavendish's collections — in Lake Rudolf. Moore is of the opinion that the former connection of the Tanganyika with the sea was in a northerly direction, through the Central African depression that is marked by the Lakes Albert and Albert-Edward to the Red Sea. Accordingly, we are to look for the same ancient fauna in these latter lakes, although their fauna is at present unknown.

It may be that this body of sea water in Central Africa continued to exist into Tertiary times, since we have some evidence — as the author points out — of the presence of marine Tertiary deposits west of the Victoria lake, which seem to extend southward to the neighborhood of the Lake Nyassa. A. E. O.

Swiss Rotifers.[1] — The appearance of the second part completes Dr. Weber's superbly illustrated monograph of the Rotifera of the Léman. This paper is by far the most complete account of this group which has appeared since the publication of Hudson and Gosse's *Manual.* In all, 127 species are described and figured with care. With commendable moderation Dr. Weber has refrained from describing any new species, but has devoted his attention to elaborate descriptions of the forms he has found and to an elucidation of their synonymy. The result is a courageous reduction in the number of species, as is attested by the fact that no less than 292 names appear as synonyms in the index which concludes the final paper. The genus Brachionus has been a fruitful field for the species maker, and it is here that our author has done most execution. This genus includes many extremely variable forms, and the question of specific limits here is a most difficult one to solve. It may be that the statistical study of the group will throw some light upon the problem. The desirability of some designation for the many variants is

[1] Weber, E. F. Faune rotatorienne du bassin du Léman, 2me partie. Ploima et Scirtopoda. *Rev. Suisse de Zoöl,* T. v, pp. 355–785, Pls. 16–25, 1898.